

# PLC Modem

## EM-PLC-SmartG02



The SmartG-02 electricity meter series are modern, electronic, fully programmable devices, designed for application in AMI systems for monitoring and control of electricity consumption.

The SmartG-02 electricity meter series meet remote data transmission requirements and enable readouts of various measurands. The meters are compliant with IEC and DLMS/COSEM standards and have been designed to serve billing purposes.

The EM-PLC-SmartG02 is a data transmission modem that works over the Power line network. It uses the Prime protocol stack to send or receive the data.

The modem could be connected to the meter as a plug and play modem that could be connected through the RS485.

The Modem module is located in an external module box.

The Data Transmission Rate is 21.4 – 128.6 Kbit/s. The module has a coupling wires that need to be connected back to the meter.



PLC



### MODEM SPECIFICATIONS

#### Modem Characteristics

<b>Prime PLC Communication</b>	<ul style="list-style-type: none"> <li>Power Line Carrier Modem for 50 &amp; 60 HZ mains</li> <li>97-carriers OFDM PRIME</li> <li>Differential BPSK, QPSK, 8-PSK PRIME compliant modulations</li> </ul>
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<b>Communication Protocol</b>	DLMS over Prime protocol stack
<b>Power Source</b>	The modem is powered from the meter, or from external power source

#### Environmental Conditions

<b>Temperature Range</b>	-5°C to +70°C
<b>Storage Temperature</b>	-25°C to +80°C
<b>Humidity Range</b>	<90%
<b>Altitude</b>	0-3600M
<b>Service Life</b>	20 Years

#### Communication

<b>Serial Communication Port</b>	RS-485 Complies with DLMS/COSEM direct HDLC protocol
<b>Data Transmission Rate</b>	RS-485: 2400 bit/s PLC: 21.4 – 128.6 Kbit/s